

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/10886

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : D01D 5/12

US CL : 246/441

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 246/441,452,465; 425/174.8E,174.8R; 57/402

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 6,110,590 A (ZARKOEB et al) 29 August 2000 (29.08.2000), Figure 1.	1-10, 12-17, 28-31 ----- 18-26
X --- Y	US 2,338,570 A (CHILDS) 30 October 1941 (30.10.1941), Figure 1.	1-17, 27-31 ----- 18-26
X --- Y	US 6,616,435 B2 (LEE et al) 09 September 2003 (09.09.2003), Figure 1A.	1-17, 27-31 ----- 18-26
X --- Y	US 4,878,908 A (MARTIN et al) 07 November 1989 (07.11.1989), Figure 1.	1, 4-10, 12-15, 17, 28-31 ----- 18-26
Y	US 6,267,987 B1 (PARK et al) 31 July 2001 (31.07.2001), col 6, lines 35-55.	18-23 and 25-26



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

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Date of the actual completion of the international search

27 September 2005 (27.09.2005)

Date of mailing of the international search report

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Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Joseph S. Del Sole

Telephone No. (571) 272-1130

INTERNATIONAL SEARCH REPORTInternational application No.
PCT/US05/10886**C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,308,434 B1 (CHICKERING, III et al) 30 October 2001 (30.10.2001), col 8, line 40 - col 9, line 50.	18-23 and 25-26
Y	US 6,471,993 B1 (SHASTRI et al) 29 October 2002 (29.10.2002), col 3, lines 40-55.	18-26